

Receipt date: 12/12/2006

PTO/SB/08A (09-06)

Approved for use through 03/31/2007. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet **1** of **2**

Complete if Known

| | |
|------------------------|-----------------|
| Application Number | 10/597307 |
| Filing Date | 19 July 2006 |
| First Named Inventor | Marziali et al. |
| Art Unit | n/a |
| Examiner Name | n/a |
| Attorney Docket Number | U008 0685 |

U. S. PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Document Number Number-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|--------------------|-----------------------|---|--------------------------------|--|---|
| /A.N./ | | US- 5938904 | 08-17-1999 | Bader et al. | |
| /A.N./ | | US- 6146511 | 11-14-2000 | Slater et al. | |
| /A.N./ | | US- 6193866 | 02-27-2001 | Bader et al. | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear | T ⁶ |
|--------------------|-----------------------|--|--------------------------------|--|---|----------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Examiner
Signature

/Alexander Nogueroles/

Date
Considered

06/17/2011

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| | | | |
|--|------|--------------------------|-----------------|
| Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i> | | Complete if Known | |
| | | Application Number | 10/597307 |
| | | Filing Date | 19 July 2006 |
| | | First Named Inventor | Marziali et al. |
| | | Art Unit | n/a |
| | | Examiner Name | n/a |
| Sheet 2 | of 2 | Attorney Docket Number | U008 0685 |

| NON PATENT LITERATURE DOCUMENTS | | | |
|---------------------------------|-----------------------|---|----------------|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| /A.N./ | 1 | ASTUMIAN et al., Fluctuation Driven Ratchets: Molecular Motors; Departments of Surgery and Biochemistry and Molecular Biology, University of Chicago; 14 March 1994 | |
| /A.N./ | 2 | BIER et al., Biasing Brownian Motion in Different Directions in a 3-State Fluctuating Potential...; Department of Surgery, University of Chicago; 27 May 1996 | |
| /A.N./ | 3 | FRUMIN et al., Nonlinear Focusing of DNA Macromolecules; Proteologics (Israel) Ltd., Rehovot, Israel; 2002 | |
| /A.N./ | 4 | GREISS et al., Cyclic Capillary Electrophoresis; Department of Biochemistry, University of Texas, San Antonio, Texas; 15 November 2001 | |
| /A.N./ | 5 | MAGNASCO, Marcelo O., Forced Thermal Ratchets; NEC Research Institute, Princeton, NJ and The Rockefeller University, New York, NY; 6 September 1993 | |
| /A.N./ | 6 | SLATER et al., The Theory of DNA Separation by Capillary Electrophoresis; Department of Physics, University of Ottawa, Ontario, Canada; Printed in "Current Opinion" 2003 | |
| /A.N./ | 7 | CHACRON et al., Particle Trapping and Self-Focusing in Temporally Asymmetric Ratchets...; University of Ottawa, Ontario, Canada; "The American Physical Society" September 1997 | |
| /A.N./ | 8 | TESSIER et al., Strategies for the Separation of Polyelectrolytes based on Non-Linear Dynamics and...; Department of Physics, University of Ottawa, Ontario, Canada, 2002 | |
| | | | |
| | | | |

| | | | |
|--------------------|---------------------|-----------------|------------|
| Examiner Signature | /Alexander Noguera/ | Date Considered | 06/17/2011 |
|--------------------|---------------------|-----------------|------------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.